

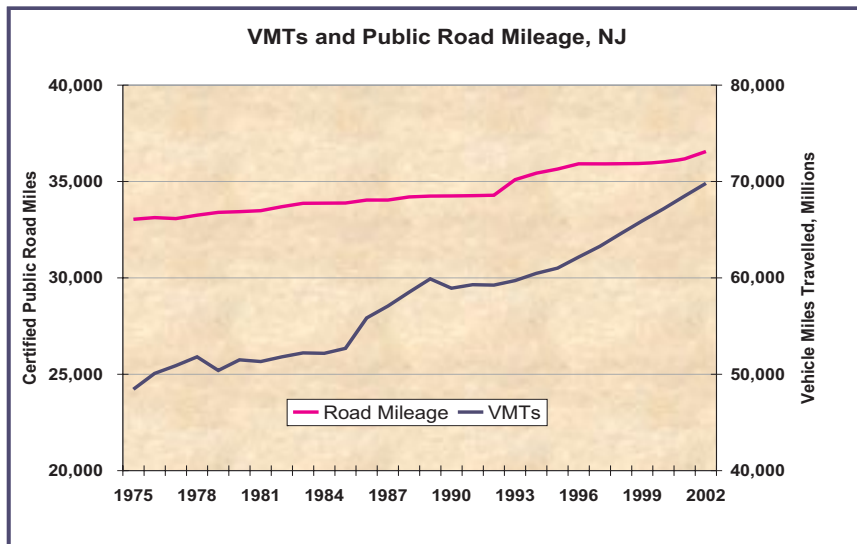
Vehicle Miles Traveled

Background

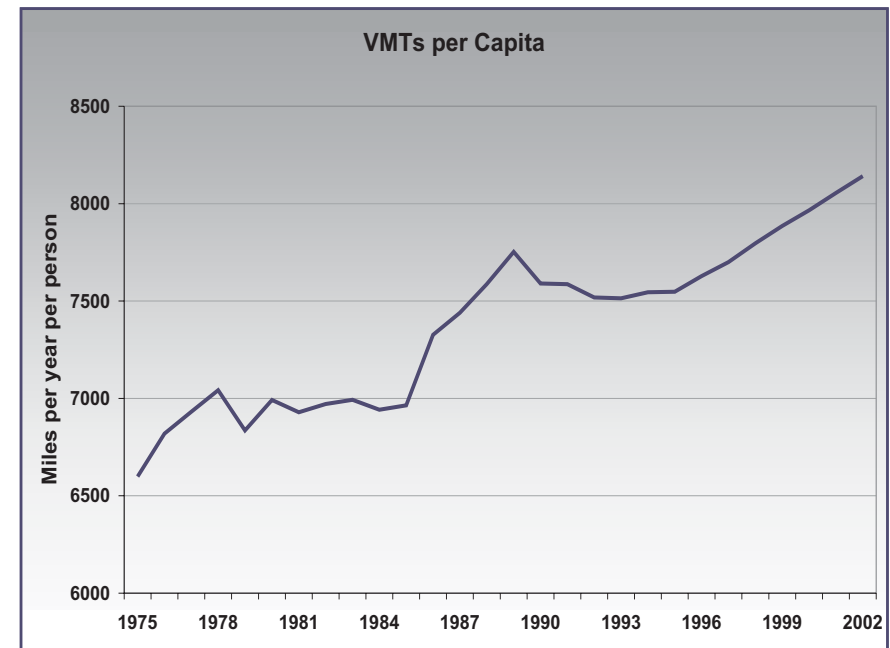
Vehicle use in New Jersey is an indirect indicator of vehicle emissions, so reviewing this data may help determine whether increases in miles driven interferes with attaining the state's ozone standards. Ozone is not emitted directly into the atmosphere; it is formed by a series of reactions between nitrogen oxides and volatile organic compounds in the presence of sunlight. Motor vehicles are the single largest source category of ozone precursor emissions in New Jersey. One indicator of vehicle use is the total miles traveled on roads and highways by motor vehicles in the state, or vehicle miles traveled (VMTs). Currently, DEP estimates that the total number of vehicles in New Jersey travel approximately 200 million miles per day on the state's roadways.

The Highway Performance Monitoring System is a national highway information system that includes data on the extent, condition, perfor-

transportation funding to individual states. The data are a reasonable approximation of vehicle travel on New Jersey's roadways. These data do not provide estimates of other important indicators such as number of vehicle trips, or information regarding the origin and destination of a trip or the speed the vehicle is traveling during the trip. The number of trips may be more indicative of vehicle emissions than VMTs because the emissions from a car are much greater for the first few minutes after start-up, when the catalytic converter is still cold and the engine is running with a richer mixture (higher gas to air ratio). However, trip data are not readily available. VMT data also do not consider the impacts of improved vehicle technology, which is expected to reduce emissions of a number of pollutants.



mance, use, and operating characteristics of the nation's highways. It is used to estimate VMTs.¹ These estimates are used to monitor highway use and aid the Federal Highway Administration in allocating federal



Trend

The chart "VMTs and Public Road Mileage, NJ" shows a steady increase in VMTs and a much slower relative increase in public road miles. The chart "VMTs per Capita" shows a steady increase in VMTs per person in the state.

Outlook and Implications

The charts show why traffic congestion is becoming more of a problem. It is becoming increasingly apparent that the solution to congestion is not more road miles, but alternatives to increased vehicle traffic. Expanding a highway is an expensive, short-term solution to a situation that must be dealt with on a long-term scale. Moreover, bigger highways attract more traffic, which in time will lead to more congestion. Expanded and new highways also often result in increased development and sprawl, leading to additional vehicles, and therefore more congestion.² Some smart growth alternatives include different patterns of housing, and commercial activities that facilitate pedestrian and bicycle travel or electronic commerce and telecommuting.

More Information

For more information, visit www.state.nj.us/transportation/refdata/roadway/vmt.shtm or www.fhwa.dot.gov/environment/vmtems.htm

References

¹ www.fhwa.dot.gov/policy/ohpi/hpms/abouthpms.htm

² www.tstc.org/mythfact.html

Much of the information in this report was provided by NJDEP Environmental Indicators Technical
Technical Report, 2nd Edition and NJDOT Bureau of Transportation Data Development.